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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,774	02/12/2004	Philip Ted Kortum	1030-LB1039	2947
60533	7590	08/16/2007	EXAMINER	
TOLER SCHAFFER, LLP 8500 BLUFFSTONE COVE SUITE A201 AUSTIN, TX 78759			AJIBADE AKONAI, OLUMIDE	
			ART UNIT	PAPER NUMBER
			2617	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/777,774

Applicant(s)

KORTUM ET AL.

Examiner

Olumide T. Ajibade-Akonai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) --
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 09/02/2004 --
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 6, 9-11, and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Granberg 6,195,543.

Regarding **claim 1**, Granberg discloses a method comprising determining a first real-time, cost-per-unit-time billing rate for an in-progress telephone call of a wireless telephone (calculating call charges, see abstract, figs. 1 and 3, col. 5, lines 66-67, col. 6, lines 1-13); and displaying the first real-time, cost-per-unit-time billing rate on a display of the wireless telephone during the in-progress telephone call (displaying call charges during the call, see abstract, col. 6, lines 1-13).

Regarding **claim 2**, as applied to claim 1, Granberg further discloses after said displaying the first real-time, cost-per-unit time billing rate: determining a second real-time, cost-per-unit-time billing rate for the in-progress telephone call of the wireless telephone (calculating a charge for a call due to changing conditions, see col. 6, lines 3-10); and displaying the second real-time, cost-per-unit-time billing rate on the display of the wireless telephone during the in-progress telephone call (displaying call charges during the cal, see abstract, col. 6, lines 1-13).

Regarding **claims 3 and 11**, as applied to claims 2, 9, and 10, Granberg further discloses wherein the second real-time, cost-per-unit-time billing rate differs from the first, cost-per-unit-time billing rate (see col. 6, lines 3-7).

Regarding **claims 5 and 13**, as applied to claims 1 and 9, Granberg further discloses determining a first rate description associated with the first real-time, cost-per-unit-time billing rate; and displaying the first rate description on the display of the wireless telephone during the in-progress telephone call (calculating a charge for a call due to changing conditions, and displaying call charges during the call, see abstract, col. 5, lines 66-67 and col. 6, lines 1-13).

Regarding **claims 6 and 14**, as applied to claims 1, 5, 9 and 13 Granberg further discloses wherein the first rate description and the first real-time, cost-per-unit-time billing rate are simultaneously displayed by the display of the wireless telephone (displaying call charges during the cal, see abstract, col. 6, lines 1-13).

Regarding **claim 9**, Granberg discloses a wireless telephone (mobile station 18, see fig. 2, col. 5, line 27-28) comprising: a display (display 30, see fig. 2, col. 5, lines 27-30) to display, during an in-progress telephone call, a first real-time, cost-per-unit-time billing rate for the in-progress telephone call (displaying call charges during the call, see abstract, col. 6, lines 1-13).

Regarding **claim 10**, as applied to claim 9, Granberg further discloses wherein the display is to display, after displaying the first real-time, cost-per-unit time billing rate but during the in-progress telephone call, a second real-time, cost-per-unit-time billing rate for the in-progress telephone call (calculating a charge for a call due to changing

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conditions, and displaying call charges during the call, see abstract, col. 5, lines 66-67 and col. 6, lines 1-13).

Regarding **claim 15**, as applied to claim 9, Granberg further discloses: a receiver (radio circuitry 28, see col. 5, lines 27-30) to receive data indicating the first real-time, cost-per-unit-time billing rate from a remote node (see col. 5, lines 56-67, col. 6, lines 1-12).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 4, 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Granberg 6,195,543** in view of **Benco et al 7,068,997**.

Regarding **claims 4 and 12**, as applied to claims 1 and 9, Granberg discloses the claimed invention. Granberg, however, does not explicitly disclose wherein the first real-time, cost-per-unit-time billing rate comprises a cost-per-minute rate.

In a similar field of endeavor, Benco et al discloses, wherein the first real-time, cost-per-unit-time billing rate comprises a cost-per-minute rate (see col. 3, lines 55-57).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Benco et al, by calculating the billing rate as a per-minute rate, into the system of Granberg for the benefit of providing roaming charge rates to a mobile phone.

Regarding **claim 7**, as applied to claim 1, Granberg discloses the claimed invention except wherein said determining is performed by a node remote to the wireless telephone, the method further comprising: sending data indicating the first real-time, cost-per-unit-time billing rate from the node to the wireless telephone during the in-progress telephone call.

In a similar field of endeavor, Benco et al discloses wherein said determining is performed by a node remote to the wireless telephone (home MSC 18,

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see fig. 1, col. 3, lines 15-20), the method further comprising: sending data indicating the first real-time, cost-per-unit-time billing rate (per-minute roaming charge, see figs. 1 and 2, col. 3, lines 20-25, lines 47-51) from the node to the wireless telephone during the in-progress telephone call (steps 54-64, see fig. 2, col. 3, lines 15-33, lines 48-67, col. 4, lines 1-3).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Benco et al, by calculating the billing rate as a per-minute rate, into the system of Granberg for the benefit of providing roaming charge rates to a mobile phone.

5. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Granberg 6,195,543** in view of **Himelhoch 20050032505**.

Regarding **claim 8**, as applied to claim 1, Granberg discloses the claimed invention except displaying a number of days remaining in a billing period on the display.

In the same field of endeavor, Himelhoch discloses displaying a number of days remaining in a billing period on the display (see fig. 1, p.3, [0031], [0033]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made, to combine the teaching of Himelhoch, by having displaying a billing cycle on a screen of a cell phone, into the system of Granberg, for the benefit of providing subscribers with a way of keeping track of unused minutes, and minutes and costs that exceed the monthly plan.

Regarding **claim 16**, as applied to claim 9, Granberg discloses the claimed invention except wherein the display is further to display a number of days remaining in a billing period.

In the same field of endeavor, Himelhoch wherein the display is further to display a number of days remaining in a billing period (see fig. 1, p.3, [0031], [0033]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made, to combine the teaching of Himelhoch, by having displaying a billing cycle on a screen of a cell phone, into the system of Granberg, for the benefit of providing subscribers with a way of keeping track of unused minutes, and minutes and costs that exceed the monthly plan.

6. Claims 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Benco et al 7,068,997** in view of **Granberg 6,195,543**.

Regarding **claim 17**, Benco et al discloses a system comprising: a message generator (home MSC 18, see fig. 1, col. 3, lines 15-20) to determine a first real-time, cost-per-unit-time billing rate for a telephone call of a wireless telephone (per-minute roaming charge, see figs. 1 and 2, col. 3, lines 20-25, lines 47-51), and to generate a first message having data which indicates the first real-time, cost-per-unit-time billing rate to the wireless telephone during the telephone call (steps 54-64, see fig. 2, col. 3, lines 15-33, lines 48-67, col. 4, lines 1-3).

Benco does not explicitly disclose determining a real-time, cost-per-unit-time billing rate for an in-progress call.



In the same field of endeavor, Granberg discloses a method comprising, determining a real-time, cost-per-unit-time billing rate for an in-progress call (calculating a charge for a call due to changing conditions, and displaying call charges during the call, see abstract, col. 5, lines 66-67 and col. 6, lines 1-13).

It would therefore have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the teaching of Granberg, by automatically determining the rate of a phone based on changing conditions during the duration of the call, into the system of Benco et al for the benefit of providing reducing the call cost/charge to a mobile subscriber by allowing the subscriber to make a decision whether to continue or terminate a call based on the current cost/rate.

Regarding **claims 18 and 19**, as applied to claim 17, Benco et al, as modified by Granberg, disclose the claimed invention. Benco et al further discloses and to generate a second message having data which indicates the second real-time, cost-per-unit-time billing rate to the wireless telephone during the in-progress telephone call (steps 54-64, see fig. 2, col. 3, lines 15-33, lines 48-67, col. 4, lines 1-3). Granberg further discloses wherein after generating the first message, the message generator is to determine a second real-time, cost-per-unit-time billing rate for the in-progress telephone call of the wireless telephone (calculating a charge for a call due to changing conditions, see col. 6, lines 3-10) and wherein the second real-time, cost-per-unit-time billing rate differs from the first, cost-per-unit-time billing rate (col. 3, lines 15-26, lines 55-60).

It would therefore have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the combination of Benco et al and

Granberg for the benefit of providing reducing the call cost/charge to a mobile subscriber by allowing the subscriber to make a decision whether to continue or terminate a call based on the current cost/rate.

Regarding **claim 20**, as applied to claim 17, Benco et al further discloses wherein the first real-time, cost-per-unit-time billing rate comprises a cost-per-minute rate (see col. 3, lines 55-57).

Regarding **claim 21**, as applied to claim 17, Benco et al further discloses wherein the message generator is to determine a first rate description associated with the first real-time, cost-per-unit-time billing rate, and wherein the data in the first message indicates the first rate description (see col. 3, lines 55-60, col. 4, lines 28-32).

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Benco et al 7,068,997** in view of **Granberg 6,195,543** as applied to claim 17 above, and further in view of **Himelhoch 20050032505**.

Regarding **claim 22**, as applied to claim 17, Benco et al, as modified by Granberg, discloses the claimed invention except displaying a number of days remaining in a billing period on the display.

In the same field of endeavor, Himelhoch discloses displaying a number of days remaining in a billing period on the display (see fig. 1, p.3, [0031], [0033]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made, to combine the teaching of Himelhoch, by having displaying a billing cycle on a screen of a cell phone, into the system of Benco et al, as

modified by Granberg, for the benefit of providing subscribers with a way of keeping track of unused minutes, and minutes and costs that exceed the monthly plan.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tiedemann, Jr. et al 5,862,471 discloses a method and apparatus for providing roaming indication with charge information.

Koskinen et al 7,058,165 discloses charging in a communication system.

King et al 20030203731 discloses a cellular telephone and method of displaying account information.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olumide T. Ajibade-Akonai whose telephone number is 571-272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on 571-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

  
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SUPERVISORY PATENT EXAMINER  
8/14/02